

REMARKS

Applicants hereby add new claims 67-85. Accordingly, claims 1-30, 32-34 and 67-85 are pending in the present application.

Claims 2 and 13 stand rejected under 35 USC 112, second paragraph for indefiniteness. Claims 1-34 stand rejected under 35 USC 103(a) for obviousness over U.S. Patent No. 6,278,264 to Burstein et al.

Referring to the anticipation rejection of claim 1, the Examiner states on pages 2-3 of the Office Action that since the transistors of Burstein are used to form power transistors, it would have been obvious to one of ordinary skill in the art that the power transistors can conduct currents exceeding one Ampere. Applicants disagree.

Burstein is directed towards a switching regulator serving as a DC-to-DC converter as set forth in col. 4, lines 60-61. As set forth in col. 5, lines 10-45, the intermediate terminal 22 voltage is filtered to provide a substantially constant DC output voltage at output terminal 24. Burstein is not concerned with conduction of power currents, but rather voltage conversion.

Burstein is devoid of any teachings or suggestion of magnitude of currents which may be safely conducted using transistors 30, 32 let alone currents in excess of one Ampere. The mere disclosure of power switches fails to disclose or suggest the range of current conduction as claimed by Applicants. Claim 1 is allowable for at least this reason.

The Office Action fails to present a prima facie case of obviousness. Referring to MPEP §2143 (8<sup>th</sup> ed.), to establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings. There must be a reasonable expectation of success and all limitations of the claim must be taught or suggested.

The mere fact that references *can* be combined or modified does not render the resultant combination obvious *unless the prior art also suggests the desirability of the combination*. MPEP §2143.01 citing *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Obviousness cannot be established by a combination of references unless there is some motivation in the art to support the combination. See *ACH Hospital Systems, Inc. v. Montifiore Hospital*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). The motivation for forming the combination must be something other than hindsight reconstruction based on using Applicant's invention as a road map for such a combination. See, e.g., *Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 551 (Fed. Cir. 1985); *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990).

The Federal Circuit discussed proper motivation *In re Lee*, 61 USPQ 2d 1430 (Fed. Cir. 2002). The motivation identified in the Office Action is akin to the conclusory statements set forth in *In re Lee* which were found to fail to provide the requisite motivation to support an obviousness rejection. The Court

in *In re Lee* stated the factual inquiry whether to combine references must be through and searching. It must be based on objective evidence of record. The Court in *In re Fritch*, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) stated motivation is provided only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. The *Lee* Court stated that the Examiner's conclusory statements in the *Lee* case do not adequately address the issue of motivation to combine. The Court additionally stated that the factual question of motivation is material to patentability and can not be resolved on subjective belief and unknown authority. The Court also stated that deficiencies of cited references cannot be remedied by general conclusions about what is basic knowledge or common sense. The Court further stated that the determination of patentability must be based on evidence.

In the instant case, the record is entirely devoid of any evidence to support the 103 rejection apart from the bald conclusory statements of the Examiner which are insufficient for proper motivation as set forth by the Federal Circuit. The Office cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims but must set forth rationale on which it relied. Statements set forth in the present Office Action are akin to the alleged motivation discussed *In re Lee* and accordingly are insufficient to combine or modify the reference teachings.

In addition, there is absolutely no evidence of record that the devices of Burstein can conduct power currents in excess of one Ampere as claimed or that a reasonable chance of success would be expected. The 103 rejection of claim 1 is improper for these reasons and Applicants respectfully request allowance of claim 1 in the next Action.

Moreover, the art is devoid of disclosing limitations of Applicants' claim 1. The only source of the rejection may result from the personal knowledge of the Examiner. Applicants hereby request identification of prior art which discloses the features not found in the references of record or the submission of an affidavit in support of the 103 rejection of claim 1. "[A]ssertions of technical facts in areas of esoteric technology must always be supported by citation of some reference work" and "allegations concerning specific 'knowledge' of the prior art, which might be peculiar to a particular art should also be supported." *In re Ahlert*, 424 F.2d 1088, 165 USPQ 418, 420-421 (CCPA 1970).

The obviousness rejection of claim 1 is improper for the above-identified numerous reasons and Applicants request allowance of claim 1 in the next Action.

The claims which depend from independent claim 1 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

For example, claim 2 recites the semiconductive substrate further comprising a ***horizontal interconnect layer formed upon and coupled with at least one metallization layer*** and defining source and drain contacts configured to couple with source and drain contacts of the package. An exemplary embodiment of such a construction is depicted in Fig. 9 and is described starting at paragraph 86 of the originally-filed specification. Burstein fails to provide details regarding electrical coupling of doped regions to the package. As set forth in col. 6, line 22, details regarding metallization layers are not provided in Burstein. The prior art fails to disclose or suggest the claimed horizontal interconnect layer and claim 4 is allowable for at least this additional reason.

Claim 10 recites the package comprising a plurality of **conductive layers corresponding to respective ones of the columns**. The Burstein patent clearly utilizes solder balls 56 which fail to disclose or suggest the claimed conductive layers and claim 10 is allowable.

Claim 17 recites the power transistor having **source contacts and drain contacts adjacent to and over substantially an entirety of a surface of the substrate** and configured to conduct power currents. As clearly shown in Figs. 2 and 3A of Burstein, significant void spaces containing no source or drain pads exist on the surface of the chip and such are not provided over substantially an entirety of the surface of the substrate. In one exemplary embodiment, the integrated circuit assembly of the invention may be utilized as a synchronous rectification power converter wherein low on resistance values are desired.

Providing source and drain contacts over substantially the entirety of the surface of the substrate assists with lowering the on resistance in one exemplary implementation. Limitations of claim 17 are not shown nor suggested by the prior art and claim 17 is allowable.

The claims which depend from independent claim 17 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

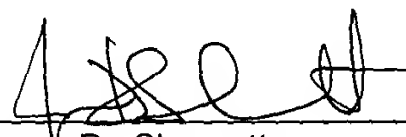
Support for the new claims may be found at least at paragraph 108 and Figs. 6 and 9-11.

Applicants respectfully request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 2/28/03

By:   
James D. Shaurette  
Reg. No. 39,833